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Article

Social capital in Eibar, 1886–1985: dimensions, institutions and outcomes

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ABSTRACT

It is widely accepted that the generation of knowledge and its diffusion is an important mechanism in order to promote innovation and entrepreneurship, but many studies over-estimate the importance of spillovers and do not explain the actual dissemination of know-how. This involves looking into social capital in order to analyze the channels of tacit knowledge and the players involved.

This paper tackles the role of social relationships as facilitators of the industrialization process in Eibar, an old industrial town in the Basque Country. From a micro-level approach, and applying social network analysis, co-ownership links, old-school personal relationships, voluntary association, or family ties between companies are investigated. The evidence shows that there is an informal network that forms a remarkable alternative for official channels of interaction, and helps to understand the industrial dynamism of the town.

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Capital social en Eibar, 1886-1985: dimensiones, instituciones y resultados

RESUMEN

Se acepta ampliamente que la generación del conocimiento y su difusión es un mecanismo relevante para promover la innovación y el espíritu empresarial, pero muchos estudios sobrestiman la importancia del efecto derrame y no explican la transferencia real del know-how. Para ello es necesario investigar el capital social con el fin de analizar los canales de conocimiento tácito y los actores implicados.

Este artículo aborda el papel de las interrelaciones sociales como facilitadores del proceso de industrialización de Eibar, una antigua ciudad industrial del País Vasco. Desde un enfoque micro y empleando el Análisis de Redes Sociales se investigan las conexiones de copropiedad, las relaciones personales originarias de la escuela, la asociación voluntaria o los vínculos familiares entre las empresas. La evidencia pone de relieve la existencia de una red informal que constituye una notable alternativa para los canales oficiales de interacción y ayuda a entender el dinamismo industrial de la ciudad.

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1. Introduction

Making something new, improving the quality and characteristics of existing products or producing things more cost-efficiently are three of the ways for economic development (Westlund, 2006),

but actually innovation represents 'the high road strategy' in contrast to 'the low road strategy' based on relative cost (Asheim et al., 2011). Change rather than stability is increasingly necessary in a knowledge economy, and only the territorial production systems which are able to learn how to adapt continuously to the new conditions remain competitive (Maillat, 2001).

Innovation is a process that highly depends on interaction, where actors operate in a context in which the resources they need to mobilize are shared with others and actually change

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(Lundvall and Christensen, 2004). In this process, social links and the norms and codes associated with them play an important role. The reason is simply that good social relations facilitate communication while absence of relations or bad relations do not, and a sort of a shared social “capital” is needed for knowledge transfer (Lorenzen, 2007). Thereby, more and more researchers concentrate on the complex nexus of relations and the common store of values that provide channels for rapid dissemination of knowledge and grant a basis for co-operation leading to a continuous stream of improvements (Malmberg et al., 1996; Casson and Della Giusta, 2007). Surprisingly, the room left to informal social ties in representing localized knowledge spillovers appears to be greatly reduced (Visser, 1999), even though this channel has been widely acknowledged by both economists (Asheim, 1996; Audretsch and Feldman, 1996; Camagni, 1991; Saxenian, 1994) and scholars of social networks (Burt, 1992; Granovetter, 1973) as a key mechanism for know-how sharing. Therefore, in line with other studies that have empirically mapped knowledge networks in agglomeration economies (Boschma and Ter Wal, 2007; Giuliani and Bell, 2005; Giuliani, 2007; Morrison and Rabellotti, 2009), the main thesis of this work is that social capital inheres in the relations between and among persons and is a productive asset facilitating some forms of social action while inhibiting others.

At the firm level, social interaction of formal and informal nature may increase business opportunities for investors. On the one hand, business networks formed through interlocking directorates or ownership-based strategies are said to facilitate knowledge spillovers as well as reduce uncertainty and cost for accessing resources (Mizruchi, 1996; Westphal et al., 2006). On the other hand, information transfer may be redoubled if entrepreneurs make use of social relationships concerning family, friendship, vicinity, schooling, associationism and so on (Garrués and Rubio, 2011). In this line, the objective of this paper is triple: as a theoretical contribution, it highlights the web of relations among entrepreneurs as a key variable to understand the formation and evolution of any economic space. From the methodological point of view, it emphasizes the potential of social network analysis for studying entrepreneurship in the long-term, and several new indicators are introduced to measure social capital. Lastly, the third objective is to verify the relevance of informal ties as additional channels for information and knowledge dissemination.

The analysis focuses Eibar, an old industrial milieu at the Deba Valley in Gipuzkoa (ES212) characterized by its dynamism and capacity to overcome several economic crises over the 19th and 20th centuries. The social structure of Eibar has been methodologically constructed upon objective data from the Commercial Registry Office of Gipuzkoa between 1886 and 1985, creating an extent database of more than 1400 companies. Afterwards, this information has been completed with primary sources of the Gunsmithing School, the Town Council and civil associations, plus a compilation of almost 2000 old photographs collected from residents and local journals.

The paper is structured as follows: the second section provides the theoretical background on social capital and presents a new approach to measure it. The third section introduces informal interaction as an alternative means for knowledge spillovers. The fourth section presents the methodology and later on the empirical study is carried out. Finally, the main conclusions of my research are mentioned in the sixth section.

2. Dimensions of social capital

In the last decades, the theory of social capital has grown exponentially in terms of scientific articles and its potential value for the economic development is an important reason for the awaken

interest (Woolcock, 2001; Anderson and Jack, 2002; Westlund, 2006; Malecki, 2012). The problem of including the social perspective in economic methodology has constituted one of the classic debates presented in the academic world (Swedberg and Granovetter, 1992) and social capital is a concept that serves to agglutinate the problem of embeddedness, that is to say, the contribution of the social dimension to the economy. It has become evident that there is something else which is not explained by the empirical results from others forms of capital, and social capital seems to be the “missing link”. Actors and institutions are linked through different kinds of relations explicit in structures or in organization charts, but there is “another unwritten reality” where agents are embedded. This has been proved to be crucial at understanding why regions, communities, cities, certain social groups or individuals with comparable resources and attributes have different outcomes, even when the same initiatives are carried out. The answer can be found in culture, social relations, trust and norms, which are all about social capital.

In this line, since the mid-1990s, a paradigmatic shift is occurring in economic geography towards a relational economic geography, which is concerned primarily with the ways in which socio-spatial relations of actors are intertwined with broader structures and processes of economic change at various geographical scales. In this relational approach, the interactions of key agents are the central spotlight of analysis, which are viewed as operating within a context of institutions, norms and rules which condition their choices and relations. Despite the claims of novelty among most economic geographers who have taken on such a relational thinking in their geographical analysis, it remains unclear whether this ‘relational turn’ represents merely a modest reworking of earlier work in economic geography. Furthermore, there is still little conclusive evidence on the conditions under which social capital produces a significant difference in the performance of companies or regions (Staber, 2007), due both to the multidimensional nature of the concept and the methodological complexities inherently involved in the measuring process (Schmiedeborg, 2010). In any case, this perspective integrates various themes of socio-spatial relations that can offer an alternative understanding of major research concerns in contemporary economic geography.

There are a variety of definitions about social capital in circulation. Three seminal contributions in the literature provide different interpretations: an individualistic viewpoint (Bourdieu, 1986), a community perspective (Coleman, 1988) and a macro approach (Putnam, 1993). Similar are the tripartite individual-group-society (Castiglione, 2008), the distinction of individual and collective social capital (Van Deth, 2008) or the dichotomy relational capital versus system capital (Esser, 2008). Further, other classifications highlight the structural aspects (connections) and cultural components (norms, trust, etc.); instrumental purposes of action (e.g. for gaining wealth, power, or reputation) or expressive strategies (e.g. for maintaining cohesion, solidarity, or well-being) (Lin, 2001); and the types of relational assets that people have access to: bonding social capital (immediate family, friends, and neighbours), bridging social capital (more distant colleagues and associates) and linking social capital (connections to people in positions of authority) (Woolcock, 2004).¹ These and many other approaches prove that there is a broad characterization in the literature and different operationalizations can be discerned as available models rely on distinct indicators and certain components are emphasized more than others depending on the analytical focus of the authors (Anderson and Jack, 2002).

¹ Lozares et al. (2011) further specify that bonding and bridging relations are horizontal (the former inwards and the latter outwards). Linking relations are also outwards, but vertical (they link nodes of different hierarchy levels).

Table 1
Dimensions, indicators and main positive outcomes of social capital in Eibar.

Dimensions	Facets	Indicators	Main positive outcomes	
Structural	Network ties	Co-ownership ties	(1), (2), (4)	1. Information exchange (lower information and transaction costs) 2. Easier access to resources
	Network ties	BoDs of local authorities and educational centres	(1), (2), (3)	
	Network ties Configuration	Labour mobility, spin-offs Mayor's reachability	(1), (4), (5) (2)	
Relational	Appropriable organizations	Schooling relationships	(6)	3. Collective action and collaboration 4. Interactive learning and (codified) knowledge creation 5. Absorptive capacity
	Trust	Family ties	(4), (5), (7)	
	Trust	Friendship ties, gastronomy clubs	(4), (5)	
	Norms	Collective adoption of manufacturing standards	(1), (3), (4)	
Cognitive	Obligations and expectations	Voluntary associability (leisure clubs)	(7)	6. Transfer of resources, group coordination 7. General and specific reciprocity 8. Institutional security and support 9. Interactive learning and (tacit) knowledge creation
	Identification	Joint values and spirit	(8)	
	Shared codes	Common base of knowledge	(4), (9)	
	Shared language	Shared conceptual apparatus	(9)	
	Shared narratives	Beliefs, stories and metaphors	(9)	

Source: Self elaboration, based on Nahapiet and Ghoshal (1998:251).

Among the most widely adopted is the typology of Nahapiet and Ghoshal (1998), who, based on Granovetter's (1992) discussion of structural and relational embeddedness, propose three dimensions for social capital: structural, relational and cognitive. Table 1 resumes the main positive outcomes that can be reached by the facets included in each one of the three dimensions.

The above mentioned dimensions are not simply different features of social capital, but highly (causally) interdependent characteristics that can act as a medium and a product of social interaction. For example, particular structural configurations have consistently been shown to be associated with relational facets such as interpersonal trust (Granovetter, 1985) and in the same way, a series of repeated relationships may shape the actor's network. Similarly, researchers have highlighted the often-complex interrelation between social identification and shared vocabulary and language (Mael and Ashforth, 1995). This paper tackles exclusively the first two dimensions, but is part of a larger PhD project that aims to study social capital in Eibar in a wider extension and a forthcoming publication will deal with the cognitive dimension more in detail.

Referring the issue of geographical scale, the relational economic geography privileges the local scale because it is the most effective site in general for the coordination of socio-economic activity and it is where these interactions most frequently and intensely lead to innovation. Conceptually, local proximity enables the pooling of resources, generating cost-savings through facility sharing, optimal capacity utilization and reduced search costs. Not only does this proximity increase the chance of knowledge spillovers, it also enables the formation of local conventions and institutions which further reduce the costs of information and enhance trust (Boggs and Rantisi, 2003), as highlighted in the next section.

This proposal is in line with new schemes of work suggested lately in Spain that stress the importance of moving from the regional vision to a more local territorial dimension, building a complementary framework that enables a better understanding of the industrialization process in a historical perspective. According to Parejo (2006), cities or local productive systems are the most primary disaggregation of available data and deserve more attention as subjects that may alleviate, even minimally, some deficiencies

and pending responses that supra-municipal approaches do not fully address. Similarly, Rubio and Garrués (2017) state that the regional development is led by territories of progress, as they are often pioneers absorbing new technological, organizational and commercial patterns.

3. Social capital and informal interaction

In a local milieu, firms are linked to other firms and typically maintain close linkages to local research and education facilities, governmental bodies and other important actors. These connections provide channels for localized knowledge spillovers by means of different channels: more formal, such as interaction between firms, suppliers and customers, collaborative research projects (between firms, technological centres and universities), contracts of technical assistance and support, etc.; or informal, such as knowledge communities, social networks, transfer of graduates from universities and technological centres to the firms, spin-offs and labour mobility.

Being knowledge in agglomeration economies prevalently tacit, translation and socialization processes require close proximity and personal relationships (Kogut and Zander, 1993). Tacit knowledge is embodied in people and difficult to express through codified language, therefore it needs face-to-face contact and direct interaction to be transmitted. These interactions occur in a rather unstructured, unplanned and unintentional way but are key mechanisms for know-how transmission (Malmberg, 2003). For example, the success of the industrial districts in the Third Italy (Becattini, 1990) or Jutland (Kristensen, 1992) or of the high tech clusters of the Silicon Valley (Saxenian, 1994) may primarily be a consequence of trust and diffusion of information and knowledge associated to informal networks. But, all academics do not agree with this point of view. Breschi and Lissoni (2009), among others, cast some doubts on the wisdom that assigns great importance to more informal, non-market related knowledge exchanges such as those originating from kinship, friendship and social gatherings. All in all, the truth is that the room left to informal social ties in explaining localized knowledge spillovers appears to be greatly reduced. Westlund and Adam (2010) collected information about 65 studies of the relationship between social capital and economic performance, and 30

(46%) intended to measure the role of informal contacts in one way or another. Nevertheless, the majority infer the effect of association membership or the entrepreneurs' social network in growth measures through regressions or correlation analysis but do not explain the actual dissemination of knowledge. That demands going deeper into social capital in order to study the channels of knowledge diffusion and the participating actors.

A specific form of interpersonal tie that has attracted a vast amount of research is interlocking directorates, those situations 'when a person affiliated with one organisation sits on the board of directors of another organisation' (Mizruchi, 1996:271). Nevertheless, SMEs predominate in Eibar and firms have not normally interacted by appointing a leader from a firm to serve on the focal board. Instead, CEOs have usually shared the ownership of several companies, contacting each other through formal and informal linkages that, in many cases, have led to strong relationships implying trust. In that vein, this investigation is initially based on the fundamental premise that co-investors have common objectives and a certain degree of social interaction that can positively impact on knowledge dissemination and business creation. This idea has inevitably nurtured the need of illustrating the local business network in a longitudinal perspective, similar to what has been done in the vicinity town of Elgoibar (see Appendix 1).² Therefore, the first research question dwells on it:

RQ#1: Can co-ownership ties be used to reflect the existence of structural social capital in Eibar? In particular, which is the historical pattern of joint partnership and who are the most relevant actors?

A further challenge tackled in this study arises as a result of the previous question. Apart from ownership-based linkages, there are other mechanisms by which the corporate elite is integrated or by which information spreads among firms. The second research question then aims to approach this issue, formulated as follows:

RQ#2: What other personal relationships have been developed in Eibar among top executives? And to what extent do joint ownerships actually reproduce this deeper set of social relations?

4. Methodology

As stated so far, this study involves a study in 2 different dimensions. In the structural analysis, joint shareholders have been studied with data from the Commercial Registry Office in San Sebastian. Economic historians generally agree that this is an appropriate source for measuring capital formation and investment prospects in a particular geographic area (Jiménez Araya, 1974). Indeed, the creation of companies is a great proxy of the entrepreneurship in a community, because it demands not only the prior establishment of a relationship, but also other factors such as recognizing a business opportunity, trying to solve the possible technical limitations, achieving funding, and, finally, starting the organization and running the new project (Garrués and Rubio, 2011). In that respect, the province of Gipuzkoa was, along with Bizkaia, one of the most dynamic provinces in Spain regarding the creation of public limited companies during the period of study (Catalán et al., 2017; Valdaloiso, 1986, 1988).

The fact that the industry in the Deba Valley has very few large corporate structures discourages the option to use boards

of directors as isolated elements to determine the degree of business cohesion. Notwithstanding, the predominance of limited and family partnerships suggests the opportunity to study the business links among associates that are registered in the Commercial Registry Office as co-founders of a company.

In an effort to systematize the analysis, several prior constraints were implemented for data collection. First, the longitudinal analysis comprises a century and begins in 1886, when the first companies were registered in the Commercial Registry Office of San Sebastian after the promulgation of the new Code of Commerce in 1885 (Herrero Pascual and Montojo, 2002). Second, firms are only tied through individuals that participate in more than one company, excluding subsidiaries or blood relations that may exist among a particular associate and other relatives. And third, the subsequent dataset has been completed with information of the Registry of Cooperatives of the Basque Government. Cooperativism is a phenomenon that is very rooted in the Basque Country (especially in Mondragon and its surroundings) and a study of these characteristics could not ignore this source of information. On the contrary, the great amounts of self-employed labourers of the valley have not been considered in this study for simplifying the research process. That means that, from now on, any time that I mention a firm, I am referring to a registered firm.

In total, I obtained information about 537 companies registered in Eibar for the period 1886–1985. Once the empirical basis was set, I undertook the process of homogenization of the data, eliminating the effects of variations in the naming or legal form of companies to avoid duplications. Later on, the companies were classified according to their activity, following the CNAE, that is, the National Classification of Economic Activities (2 digits).³

The second part of the analysis is devoted to study other types of informal networks in Eibar. To this end, I contacted various educational and civil associations in the town and collected historical membership data in various forms (a sequence of Boards of Directors, a list of members in a given moment, etc.). Finally, I crisscrossed this information with the dataset extracted from the Commercial Registry Office and I managed to find out if any of the participants in these associations were/had been entrepreneurs. At this point, it should be noted the difficulties for the identification of each individual, a key aspect for establishing the corporate relationships between them. Apart from transcription errors or the typical problems of indiscriminate use of b/v or i/y (depending on if the referent language was Basque or Spanish, respectively), there are some common surnames that could lead to confusion, like Echevarria or Echeverria (written with a in Bizkaia and e in Gipuzkoa). Besides, there are many double surnames that sometimes appear fully (Arizmendiarieta) and some other times shortened (Arizmendi). Therefore, to avoid matching errors, I have tried to work with 2 surnames as far as possible, and in case of doubt, I have sought to obtain extra information to clarify the identity of the corresponding person.

All linkages of the civil society, as well as the ownership-based connections mentioned before, have been mapped through social network analysis (SNA), a discipline that explores the patterning of relations among social actors (Breiger, 2004). From the data of those relations is possible to analyze the positions of certain actors and the existence of groups, leading to a better understanding of that social structure and highlighting the links through which occurs a constant flow of resources. In short, SNA will allow us to visualize linkages and to shed light on the different roles actors play in the local knowledge system, and the findings that we can obtain may

² Elgoibar, located 5 km away from Eibar, celebrated in 2014 the 100 anniversary of the machine tool industry in the town and a group of history fans traced the network of local actors (companies, council, school, banks, associations, etc.) that have contributed to uphold the sector.

³ To check the list, see <http://www.cnae.com.es/lista-actividades.php>. There are quite a lot of similar subsectors that I have grouped together for this study.

be an excellent proxy of the existing social capital in Eibar during the period of analysis.

5. Analysis of social capital in Eibar

5.1. Structural analysis

5.1.1. Co-ownership ties

As stated so far, the first research question points to co-partnership since social interaction among co-investors may have positively impacted on knowledge dissemination and business creation. For that purpose, Fig. 1 encompasses investments performed in companies registered in Eibar between 1886 and 1985. The graph gives us an idea of the underlying business network derived from the properties owned by entrepreneurs in Eibar. The chain of spin-offs and new initiatives born from previous firms suggest the existence of knowledge spillovers and the transmission of personal experience and tacit know-how through various branches of these networks.

A deep analysis of the graph depicts 4 stages in which node concentration is particularly meaningful. The core of the network hangs from 7 firms that to some extent have had a key role in the industrial progress of Eibar: Aurrera (1833), Orbea (1840), GAC (1848), Anita y Charola (1880), Victor Sarasqueta (1887), Jose Cruz Echeverria e hijo y Badiola (1892) and La Eibarresa (1893). As it can be seen, all these tractor companies belong to the firearming industry (the unique exception is Aurrera, but it produces iron for gunsmiths) and that proves the importance of this sector in Eibar during the 19th century.

If we go down in the Y axis, a bunch of actors stands out around 1920, coinciding with the end of World War I. The cease of the conflict had negative consequences for the economy in Eibar and that provoked the related diversification of some key companies (Orbea, GAC and BH started manufacturing bicycles) or the naissance of

spin-offs oriented mainly to the equipment industry or ironmongering. Parallely, particularly meaningful is the emergence of the first cooperatives in this period: Cooperativa Electrica Eibarresa (1918) for supplying electricity to the associated firms, and especially Sociedad Anonima Cooperativa de Producción de Armas de Fuego Alfa (1920), the first industrial cooperative in the Basque Country which initially produced firearms but soon changed into sewing machines with huge success.

During the 40s, despite the economic autarky set up by Franco, new industrial sectors emerged in Eibar, such as the manufacture of machine tools. Companies like ABC (a former firearming firm) or Industrias AGME in Eibar, together with other producers in the vicinity (especially in Elgoibar) converted Gipuzkoa the main producer region in Spain since more than 35% of the companies in the sector were located there in the 1960s (Urdangarín and Aldabaldetrecu, 1982). In the 1950s, some companies in the metal processing sector took advantage of their resources and capabilities to specialize in the manufacture of parts and components for an automotive industry (Norma, Amaya Telleria). Simultaneously, an industry of household appliances was forged in an identical way and well-known brands like Solac or Ufesa were born in Eibar at this stage.

After the Stabilization Plan set up by the Franco regime in 1959, Eibar welcomed a period of industrialization and prosperity. This industrial boom was stopped in the 70s by the petroleum crisis and especially by the industrial exodus. The demand for house construction left no room for the growth expectations of some companies and many abandoned the congested area in Eibar to search of abundant and cheap industrial land in nearby locations. In the 80s, the economy gradually began to recover thanks to establishment of a regional government and the progressive integration into European markets. Consequently, a bunch of new start-ups was settled down in Eibar and business creation reached levels unknown since early in the century.

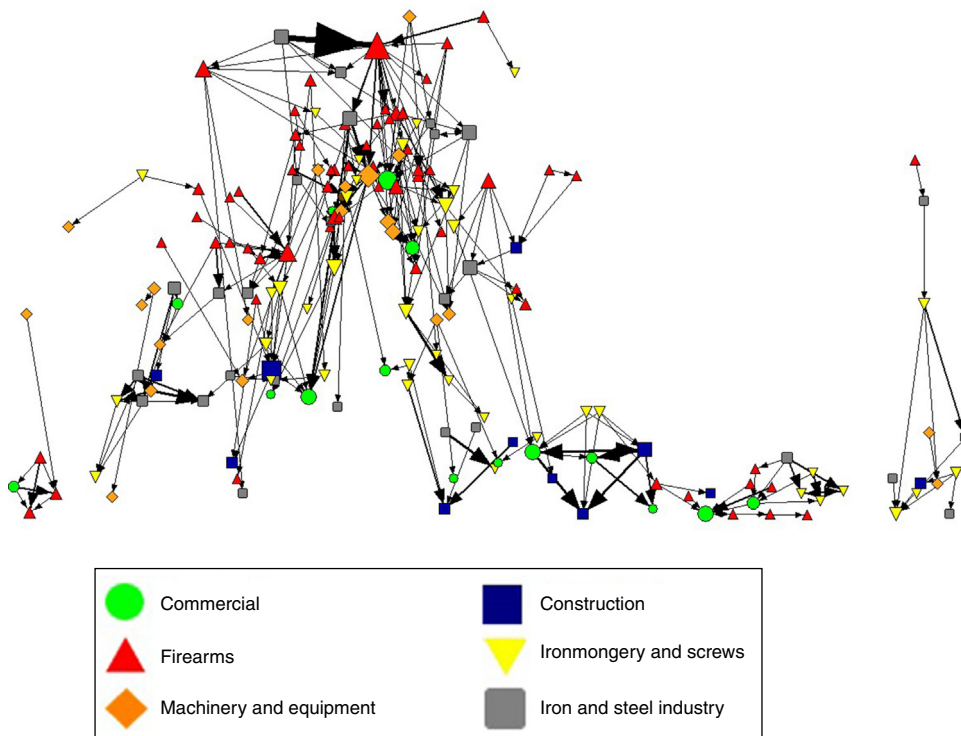


Fig. 1. Co-ownership ties in Eibar (1886–1985).

Line strength indicates number of people investing in the companies tied. - Size of nodes represents degree centrality. -Isolated nodes, dyads and triads have been removed to facilitate visualization. Source: self elaboration with data of the Commercial Registry Office in Gipuzkoa.

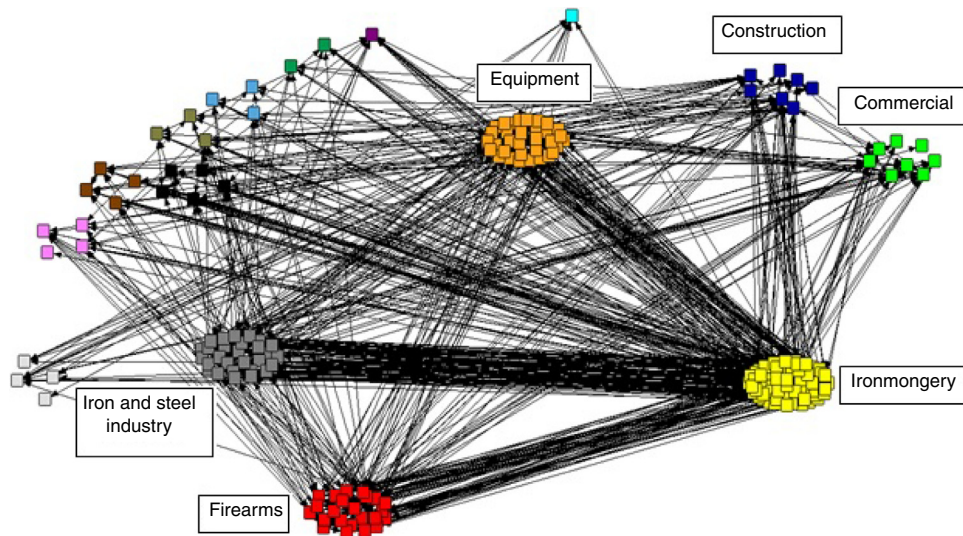


Fig. 2. Network of investors originated from the Gunsmithing School.
 Source: Self elaboration with data from the Commercial Registry Office of Gipuzkoa and the Gunsmithing School.

5.1.2. Other structural networks

5.1.2.1. The Gunsmithing School. When speaking about the industrialization process in Eibar, there are many examples of citizen participation but the creation and performance of the Gunsmithing School is, without any doubt, the best example to illustrate it. At the beginning of the 20th century, young workers used to enter in the factories in order to learn the skills of a certain craft and remained there non-paid as trainees up to four years. Aware of the technical handicaps of these workers when they entered the factories, in 1910, a group of manufacturers and other entrepreneurs called Ezkuadra Zarra⁴ proposed to the council the creation of a school for some traditional jobs and specialties of the industry in Eibar. The idea was to combine this practical training with technical and theoretical education, acquiring pieces of knowledge that went far beyond the abilities that could be obtained simply serving as apprentices and thus familiarize them with the most modern production methods.

On January 6, 1913, the first school year started in a space enabled at the old *fronton* while the first stone of the new building was put in its definitive location. The property of the school was municipal and its character purely popular. The Executive Committee comprised four delegates of the council, two members representing the employers and one standing for the workers (see Appendix 2). In successive compositions of this committee we can see the diversity of representatives participating in this board, even during Franco's regime. It is noteworthy that, when he accessed to power in 1936, these sort of civil participating organs were abolished but exceptionally, the Gunsmithing School was allowed to reconstruct its direction and preserved its municipal nature.

The role of the school is not restricted exclusively to its technical contribution since it has been a channel for multiple interactions among local companies. In Fig. 2 I show connections among investors, that is to say, alumni that have started a business.

If 2 persons (identified with name and 2 surnames) belong to the same school year at the Gunsmithing School and later on they appear to be members of different companies (according to data available at the Commercial Registry Office), these ones are tied. In total, 190 firms are tied (35.38% of all registered firms in Eibar) in 813 ties. As an average, a former student of the Armeria Eskola

is registered at the Commercial Registry Office 27 years after finishing school, so that means that, in general terms, it takes almost 3 decades to get enough resources (knowledge, funding, contacts, etc.) to start a business.

These interactions among schoolmates boosted with the creation of the Association of Alumni⁵ (Asociación de Antiguos Alumnos, AAA henceforth) in 1950. They decided to set a monthly fee of 3 pesetas, create a bulletin, establish a mutual insurance and name the first Board of Directors. This and the successive governing committees of the association have grouped representatives of the Gunsmithing School and entrepreneurs of the region. As an example, I list in Appendix 3 the members of the Board of Directors of the AAA in 1972, who belong to 18 different companies.

5.1.2.2. Town Council. The Town Council is the main executive body that is responsible for the administration in a local government area, formed by a Mayor and several councillors. In Spain, these councillors are elected among the inhabitants by direct vote, and after being elected, they meet each other in a special plenary session to determine who will be elected as a Mayor. In the following days, the Mayor chooses some councillors to set up the executive governing body that will rule the town until the next elections take place, and the other councillors form the opposition that will oversee Mayor's governance.

In Table 2 I show the Mayors of Eibar from 1912 (the year when the Gunsmithing School was created) until 1973 (the last corporation before the death of Franco). As it can be observed, the elections did not follow a fixed period of time as they do now (every 4 years) and governing teams were normally elected in accordance with other supraregional criteria.

Accessible information reveals that the Town Council, apart from playing a key role in the promotion of the economic performance of Eibar, has been a meeting point for local entrepreneurs and other interest groups. Popular businessmen like Nemesio Astaburuaga (GAC), Benjamin Villabella (manufacturer of files and rasps), Ignacio Anitua (Anitua y Charola), Jose Gonzalez Orbea and Esteban Orbea (Orbea) or Luis Palacios (Azpiri, Aranceta y Palacios) have been Mayors of Eibar, and a large list of other top managers have been councillors. As an example, in Appendix 4 I enclose the information of the representatives of the Town Council in 1938,

⁴ More information about this group is compiled in the section devoted to friendship.

⁵ More information at <http://www.armeriaeskola.eus/antiguos-alumnos/>.

Table 2
Mayors of Eibar (1912–1973).

Year	Mayor	Companies represented	Investors		
			Investors	Councillors	%
1912	Nemesio Astaburuaga	7	7	14	50%
1914	Santiago Astigarraga	11	10	16	63%
1916	Nemesio Astaburuaga	14	12	17	71%
1918	Jose Ramon Iriondo	17	11	17	65%
1920	Alejandro Telleria	4	3	11	27%
1922	Benjamin Villabella	15	8	15	53%
1923	Remigio Guimon	5	2	16	13%
1924	Jose Gonzalez Orbea	22	11	21	52%
1926	Pedro Roman Uncetabarrenechea	18	11	19	58%
1927	Ignacio Anitua	19	12	20	60%
1931	Alejandro Telleria	4	3	12	25%
1934	Domingo Cortazar	4	4	16	25%
1938	Jose Gonzalez Orbea	9	6	13	46%
1942	Justo Oria	3	2	9	22%
1949	Esteban Orbea	8	4	13	31%
1955	Luis Palacios	11	5	12	42%
1958	Javier Eguren	1	1	11	9%
1962	Jose Hernando	7	5	17	29%
1967	Jose Maria Echeverria	5	4	13	31%
1973	Antonio Maria Iraolagoitia	4	3	16	19%

Source: Self elaboration with data of the Municipal Archive of Eibar.

Table 3
Family relations intra and inter firms.

Intra			Inter		
P.	Company	Repeated	P.	Company	Links
1	Orbea y Cia	23	1	Panificadora Urquizu	15
2	Mendiguren y Zarraua	10	2	La Eibarresa	10
3	Panificadora Urquizu	10	3	Astillero del Deva	9
4	Aramberri Hermanos	9	4	Cooperativa Electrica Eibarresa	7
5	Valentin Arizmendi	9	5	Martin Errasti y Compañia	6
6	Acha Hermanos	7	6	Cines y Teatros	4
7	Crucelegui Hermanos	7	7	Hijos de Valenciaga	4
8	Francisco Anitua	7	8	Inmobiliaria Arrate	4
9	La Eibarresa	7	9	Lorenzo Telleria	4
10	Otola	7	10	Orbea y Cia	4
	Average (repeated)	3.27		Average (linked)	1.71
	Standard deviation	2.34		Standard deviation	1.56
	Companies with intra relation	149		Companies with inter relation	203
	% of total	27.75%		% of total	37.80%

Source: The Commercial Registry Office of Gipuzkoa.

where there are 9 industrialists (6 belong to registered firms and 3 more own small businesses in the town) plus a professor at the Gunsmithing School, a pharmacist, a doctor and a painter, all relatively important characters of the post Civil War in Eibar. Overall, 74 companies are represented in the whole series.

5.2. Relational analysis

5.2.1. Family ties

Studies often underline the role of bridging social capital as a promoter of the extension of the individual's social ties and also emphasize that bonding can lead to closure and exclusivity (Lin, 2008; Portes, 1998; Woolcock, 2001). However, these works do not fully recognize the socialization part of the family, since attitudes developed in family and in the community become part of external relations, reinforcing citizenship and social virtues (Bubolz, 2001; Hooghe, 2008). The family is considered the “primary socializing agent” because it recreates the process by which elementary notions of justice, obligations and rights, linguistic elocution, motivations, and behaviour models are sought and tested (Alesina and Giuliano, 2010). Literature further collects the relevant role of the “link transmission” carried out by the family through the inherited

nexus that are transferred from generation to generation (Hoffman et al., 2006). Similarly, Dasgupta (2005) considers that parents invest in social channels that they later transmit to their children and the “inheritance” of networks of relationships implies a reduction in the cost of creation and maintenance of social channels.

As shown in Table 3, in Eibar, family relations (at least two people with the same two surnames) are perceived in 149 companies (27.75%). Historically, family businesses have been very typical since it was very common to start a firm among brothers or between the father and a son. Furthermore, in cases where the main entrepreneur died, direct descendants normally continued with the company. As a reference, in Eibar there are 12 companies that incorporate the word “viuda” (widow) in the official name, 53 include the word “hermanos” (brothers) and 65 mention the word “hijos” (sons, children). Not only does the family serve for intra interaction but also for inter relations between firms. In fact, it binds 203 different companies (37.80%) registered in Eibar, which constitutes a significant channel for information and value sharing.

5.2.2. Group of friends or cuadrillas

The informal group called *cuadrilla* plays an important role in Basque social life. It refers to a group of friends very strongly linked



Fig. 3. Members of Ezkuadra Zarra with Fermin Calbeton (July 23, 1911).
Source: [Armeria Eskola \(2013\)](#).

since childhood and whose friendship is generally maintained during adulthood. This is a phenomenon that has been studied from a sociological point of view due to its potential to mobilize human resources, its power of cohesion and the information capacity it possesses. It is also an important mediator between the individual and the family, institutions and other actors of the community and helps revitalizing the ethnic awareness of the Basque society ([Ramírez, 1984](#)).

As mentioned before in the section devoted to the Gunsmithing School, a *cuadrilla* called Ezkuadra Zarra was one of the main promoters of the school. It is a group of friends that brings together the most selected actors of the town in the early 20th century (see [Appendix 5](#)). In the list there are several important gunsmiths of that time, along with representatives of the council (including the mayor), doctors, the municipal judge, the journalist of the republican newspaper *La voz de Guipúzcoa*, the photographer of the town and few artists (a pianist, a tenor and a dance teacher).

Convinced that the industry needed a boost to advance, they held a series of meetings with Fermin Calbeton, who was Minister of Public Works at the Spanish Government, in order to convince him about the need to build a professional school in the town. [Fig. 3](#) shows a picture of a meal organized in 1911 for this purpose in the fields of Olarreaga in Eibar.

In the post Civil War era, there is another group of friends worth mentioning: Kurdin. As far as I have been able to investigate, most of them were born in the 1910s decade and eventually became relevant businessmen in Eibar. In fact, this *cuadrilla* constitutes a selected team that represents at least 20 top companies of the town (see [Appendix 6](#) for further information). Some years later, in 1948, they were the basis for the foundation of Kerizpe, the first private gastronomy club in Eibar (see [Section 5.2.4](#)). Kurdin members formed exclusively the first Board of Directors and took initially the responsibility (and power) for administration during the first years.

5.2.3. Civil associations

In close connection to social capital, the broader concept of civil society is used to refer to individuals and organizations which are independent of the government. The networks created from voluntary associations seem to be relevant because they facilitate the development of trust and norms of reciprocity. In turn, the

diffusion of these cognitive aspects might establish another stimulus for engagement. Nevertheless, since the great majority of associations are of a bonding kind, one cannot make a blank assumption that voluntary associations in general are benign. Negative associationism may also flourish that can lead to under-representation of certain interests, clientelism, economic inefficiencies or even organized crime ([Warren, 2008](#)).

The truth is that, if we look at figures from the late nineteenth century, Eibar and its geographical area did not have especially significant rates of associationism. In 1895, the Basque Country occupies the tenth place in the ranking of the Autonomous Communities, and compared to Bizkaia, Gipuzkoa presents worse indicators regarding both absolute and relative figures ([GEAS, 1998](#)). Nevertheless, there is an increase of the associative movement starting in the second half of the 1900 decade, reaching its peak in 1919 in the pre Civil War era. Something similar can be said about Eibar, since in 1930 it was in the 10th place in the classification among the 89 municipalities of Gipuzkoa ([Aizpuru, 2003](#)). Between 1887 and 1936, 104 societies were created in Eibar, with a sociability index of 123.78 (one society per 123.78 inhabitants, based on the 1930 census). Thus, if the development of the associative world is a sign of the modernity of a territory (given that societies are based on the voluntary adherence of their members, in contrast with the more “natural loyalty” of the social bonds in traditional entities such as the family, neighbours, work, religion), the Eibar of the republican years can be described without hesitation as a modern society.

[Table 4](#) displays the range of associations included and the period of study. To a greater or lesser extent, they all are represented by industrials. For instance, if we analyze the Board of Directors of the Casino Artista Eibarres in 1919 (see [Appendix 7](#)), the 11 participants cover 14 companies registered in Eibar. Other associations have equally concentrated many industrialist, not only in Board of Directors and but also in member lists: Club Deportivo Eibar, in its almost 100 years of existence, has brought together many residents and it is still the largest association in Gipuzkoa after the two main football clubs of the province (Real Sociedad and SD Eibar); Club Ciclista Eibarres has been strongly tied with bike manufacturers; pelota games held in Astelena have met enthusiastic supporters of this traditional Basque sport; the local bullfighting club was the largest one in Spain in early 1960s; and shooting was

Table 4
Associations in Eibar.

Name	Activity	Year(s) studied	Companies ^a
Casino Artista Eibarres	Billiards, chess, card games	1912–29, 1955–85	14 (in 1919)
Club Deportivo Eibar	Sport activities (except football)	1924–85	10 (in 1924)
Club Ciclista Eibarres	Cycling	1927	8
Fronton Astelena ^b	Pelota	1942	10
Sociedad Deportiva Eibar	Football	1948	7
Peña Taurina Pedrucho Eibarresa	Bullfighting	1949	7
Club de Tiro Eibar	Shooting	1956	15
Asociación Cultural Arrate	Cultural activities	1959	7

Source: self elaboration.

^a Note: Companies represented in the Board of Directors.

^b Fronton Astelena is actually a private company, and processed data correspond to its shareholders in 1942.



Fig. 4. The first share of Kerizpe Club issued in 1948.

Source: Kerizpe Club.

the preferred hobby for many gunsmiths and they met each other frequently at the shooting club in Arrate.

5.2.4. Private gastronomy clubs or txokos

As I mentioned before, these kinds of clubs are very popular in the Basque Country. Their basic function is to offer recreation and rest to its associates, based on gastronomy. They operate like a self-service and the facilities (the kitchen, wine cellar and a dining room as fundamental elements) are freely used by the members. Apart from this self-service option, the most peculiar feature of gastronomic societies is the fact that the payment is done without any upper control, only based on the commitment of the member. Another sign of mutual trust between partners is the key for the entrance door. All members have their own key so they can access to the club whenever they want, without any time limitation. Since the system is based on trustful relationships, the entry of new members is controlled rigorously. They must be introduced by other partners and the proposal has to be fully accepted by other members.

According to a compilation performed by the local association “Eta kitto!”, in 1996 there were 60 private gastronomy clubs in Eibar comprising in total more than 2000 associates of 216 different firms. As the popular chef Karlos Arguiñano states in the introduction of that book, these txokos are perfect places where, before and after the meal, attendants usually talk about work, hobbies or other topics, so it goes without saying that they have witnessed for sure multiple conversations about the local industry.

In Eibar, if there is a gastronomy club that excels among others, this is Kerizpe. In 1948, the 24 men that belonged to Kurdin founded this club, the first of this typology in the town. They kept 99 shares, each one worthing 250 pesetas (see Fig. 4), and the rest were bought by relatives and acquaintances to preserve a trustful atmosphere in the club, creating a network of 42 companies represented, along with other minor workshops and individual entrepreneurs. Nowadays, Kerizpe still remains as a place where part of the elite of the society in Eibar is gathered, and a proof of that is the fact that it is the only gastronomy club that has its own chef that cooks for the associates.

5.2.5. Old photographs

Last but not least, I have decided to collect historical photographs of Eibar. It is true that it may be the weakest proxy of the analysis since, even though a photo assures that some people met each other in a determined time and space, it does not guarantee any (good) interaction among them. Anyway, some residents interrogated during the data collection described Eibar as a liberal oasis where, unlike other municipalities in the vicinity, it was usual to see competing executives having a drink together after work or even sharing the same group of friends.⁶ Thus, within this small, social and sympathetic atmosphere, it is probable that the entrepreneurs captured in old photos knew each other and had a kind of relationship strong enough to share some information.

To collect the photographs, I have mainly used three sources: first, a local journal called Eibar⁷ that, ever since 1994, includes a section where they encourage readers to send ancient photos, adding, if possible, some information about the protagonists, year and place. Second, the website GureGipuzkoa⁸ (a project run by the Provincial Council of Gipuzkoa) that aims to share the graphic material stored by that entity. And third, a blog of Javi Martín⁹ who, from time to time, hangs some photos of Eibar. In addition, I have also compiled some pictures from people that I have interviewed or contacted and who kindly were ready to share their material with me. All in all, after having viewed more than 3000 pictures, I managed to identify 156 commented photos from 1914 until 1984 that captured at least 2 entrepreneurs.

Altogether, the data analysis conducted in the previous sections dispenses significant findings about social capital in Eibar. Regarding the structural element of social capital, fellow shareholders represent a broad network of co-ownership ties where firearming firms form the core initially, but until the Civil War there

⁶ Iparragirre (2008) has also compiled some episodes in this line.

⁷ http://egoibarra.eus/es/publicaciones/revista-eibar?b_start:int=0.

⁸ <http://www.guregipuzkoa.eus/?s=&sf-mun=eibar>.

⁹ <http://javitxoo.blogspot.com.es>.

Table 5
Structural and relational indicators.

	Co-ownership	School	Council	Family	Friends	Civil ass.	G. clubs	Photos
N. companies	311	233	74	203	43	47	216	150
% total Eibar	57.91%	43.39%	13.78%	37.80%	8.01%	8.75%	40.22%	27.93%
N. aggregated		233	263	338	347	348	401	417
Aggregated (%)		43.39%	48.98%	62.94%	64.62%	64.80%	74.67%	77.65%
Ties	421	1380	655	190	579	255	1287	465
Aggregated ties	-	1380	1904	2036	2531	2706	3918	4261
Replicated co-own.		248	154	152	84	74	162	28
% total co-own.		29.45%	18.29%	18.05%	9.98%	8.79%	19.24%	3.33%
Aggregated co-own.		248	314	372	408	420	504	506
Aggregated (%)		29.45%	37.29%	44.18%	48.46%	49.88%	59.86%	60.10%

are many attempts of related diversification to move towards other businesses within the iron and steel industry, and afterwards it even evolves to non related activities like construction, transport or services. So far, this is a simplified (and expected) story about Eibar, but here raises the question whether this network really is representative of the informal interactions set up among the citizens. Co-partnership affects 57.91% of the companies, but are there other patterns of connection that facilitate personal interaction? For that reason, I have contrasted the board ties with a set of other informal networks created in Eibar. The results are shown in [Table 5](#).

7 categories have been proposed involving 77.65% of the registered companies in Eibar, and as an aggregated, they replicate the 60.10% of all joint ownerships, which somewhat suggests (i) the existence of alternative means of social interaction and (ii) the relative representativeness of co-partnership phenomena. Disaggregating, the Gunsmithing School, private gastronomy clubs and the governing teams of the town council appear to be the most important alternative channels at the informal sphere. Available data also shows the relevant role of family ties not only to strengthen internal communication in firms but as a bridging factor. And finally, we ought to mention friends, civil associations and other spontaneous encounters as important explaining factors, too.

6. Conclusions

This article tackles the process of industrialization of Eibar since the end of the 19th century. In contrast with the metropolitan area in Bilbao, the province of Gipuzkoa followed a very different path based on small and medium-sized industrial cities with a strong pre-capitalist artisan tradition that helped to familiarize the workforce with manufacturing activities.

A bottom-up industrial network led by firms, formation centres and the civil society helps explaining the economic growth and diversification of the Deba Valley over more than a century. In particular, Eibar has proved many times its capacity to discover and exploit new domains and technologies that, eventually, have resulted in new sectors (small home appliances, sewing machines and bikes, machine tools and automotive parts) and all this was channelled by different spaces of collaboration, constantly facing all type of constraints and overcoming many troublesome challenges with very little help of the government as in institution.

Social capital, created and developed through informal networks, has played a key role in this process. Metaphorically, its three dimensions (structural, relational and cognitive) have co-operated as the skeleton, heart and brain of the process, respectively, creating an indivisible corpus that has fuelled many positive outcomes such as information exchange, interactive learning and a strong identification with the Eibar spirit that have fostered even more the innovative capacity and entrepreneurship of the local productive system.

As shown in the analytical part, multiple co-ownership ties have been developed in the valley, more than half of them comprising companies of Eibar. And if we have a look of the internal picture of this town, a dense network of ownership-based linkages is highlighted through the presence of some key firms gathering dozens of partners and/or some people investing in several small companies which may have conducted to intense information sharing among local entrepreneurs and avoided the risk of insularity and lock-in through the inflow of foreign know-how.

Additionally, another finding is the relevant extension that informal networking has reached in Eibar. In answering the second research question, the combination of 7 categories replicates more than 60% of the co-partnerships existed among companies and if both sources are merged, 86.59% of the registered companies are covered, which constitutes a remarkable alternative for official channels of interaction. The case of the Gunsmithing School is a clear example to illustrate the role of citizens in the creation and development of this formation centre: it was created in 1913 by a group of friends (Ezkuadra Zarra), governed by a municipal patronage even during the Franco regime and finally introduced in the contemporary industry by the AAA. And on top of that, it laid the first stone from which Tekniker span off, converted in one of the most important technology centres of the Basque Country.

These findings are in line with some recommendations provided by the [OECD \(2011\)](#) that underlined the importance to include other formal and informal networks in the leadership of the STI policy in the Basque Country. In a paper published recently, [Etxabe and Valdalisio \(2016\)](#) proved the high connectivity across clusters by means of some highly represented actors (technology centres, government and a few tractor firms) that could potentially enhance the relatedness in the Basque Network of Science, Technology and Innovation. More precisely, [Magro et al. \(2014\)](#) stressed that, according to the information provided by regional representatives, many issues are handled through informal networks such as personal meetings and phone calls that seem to be more effective than the formal ones. Similarly, [Ahedo \(2003\)](#) points out the case of ACEDE (the Basque Cluster Association of the Home Appliance Industry) where, in spite of the fact of being few members and most of them companies of the Mondragon group, the directors and representatives of the companies acknowledge that they came to know each other more substantively in informal meetings and meals organized by the cluster-association. Likewise, [Valdalisio et al. \(2011\)](#) underlined the relevance of an e-mail distribution list among Physics graduates in the 1980s conducive to promote trust-building and relational proximity in the electronics and ICT cluster of the Basque Country. Or [Etxabe \(2018\)](#) has analyzed the tweets of companies affiliated in that mentioned cluster and argues that this informal channel represents a valid proxy to map the activity of the cluster.

Theoretically, this paper contributes to the literature by introducing a methodology to analyze and measure social capital in a local space. Based on a previous work of Nahapiet and Ghoshal (1998), several indicators have been proposed for each one of the facets, and afterwards they have been associated to some positive outcomes that may lead to entrepreneurship and innovation. In the empirical part, the ownership-based business network of Eibar (1886–1985) has been drawn for the first time and, in comparison with other similar works cited in this paper, nodes have been sorted according to their date of registry displayed in the Y axis, which constitutes a new graphical improvement that facilitates the visualization and the understanding of the historical evolution. Equally, filling the gap of other precedent studies, I have dared to measure the extent to which other informal networks can replicate mutual partnerships as CEO, and moreover, in the particular case of Eibar, some key associations have been highlighted as both meeting points to share information about ongoing business activities and entrepreneurial labs for future start-ups or spin-offs. Finally, several evidences have been listed in order to form a wide academic background that justifies the existence of a local proximity effect regarding the cognitive dimension.

A fundamental policy recommendation can be drawn for the future from this experience: governments should prevent the too easy temptation of top-down initiatives in RIS3 policies in order to speed up entrepreneurial discovery processes, and rely instead on these latent formal and informal networks. Alternatively, if they do not exist, authorities should develop policy measures and programmes conducive to the generation of spaces for dialogue and collaboration that complement public initiatives. The Eibar

(hi)story has shown that, although it takes longer time and it does not guarantee, per se, economic success, local branching actions may host a hidden potential to buzz innovation and foster the competitive position of the region.

Looking ahead, this analysis arises multiple research lines for the future. Despite the drawbacks commented in data collection and processing, I am eager to continue working at the individual level and I personally think that there is a lot of work to be done investigating relationships among workers. In Eibar, numerous spin-offs were created by employees that exited other companies and that suggests that this level of analysis is important for entrepreneurship and knowledge spillovers. Further, this historical analysis can be extended to other municipalities, introducing flashbacks that enable a better understanding of their trajectories in the long term. In particular, I believe that the worldwide known cooperativism phenomenon of Arrasate and Mondragon Corporation concentrates its narrative mainly at the firm level, describing the creation of a vast network of companies in various diversified sectors, and in my opinion, this story allows a wider scope of analysis, incorporating other key actors of the civil society.

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Appendix 1. The evolution of the machine tool industry in Elgoibar (1914–2014)

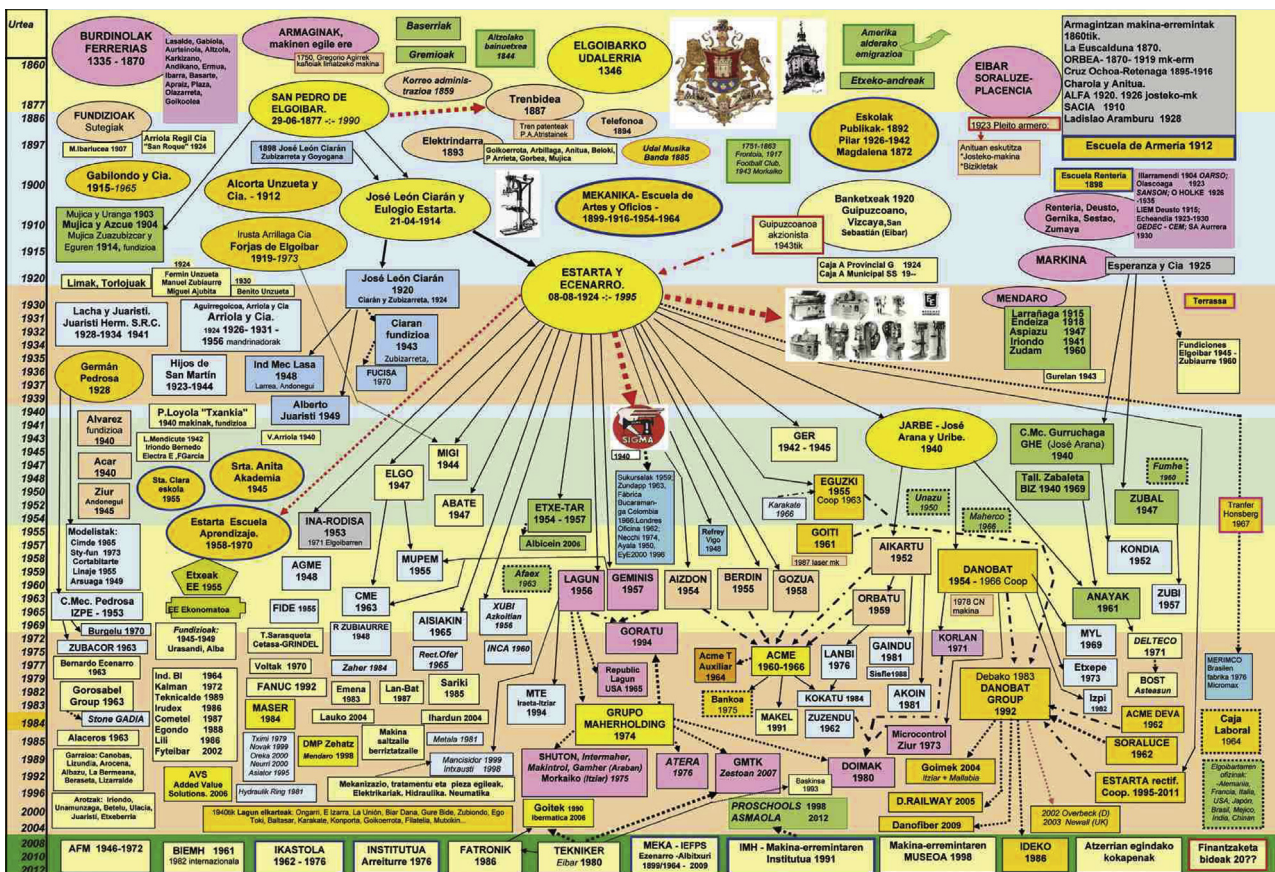


Fig. 5. Source Andonegi and Arrieta (2014: 40-41).

Appendix 2. Board of Directors at the Gunsmithing School in 1912

No.	Name and first surname	Responsibility	Occupation
1	Valentin Orbea	President	Orbea y Cia, Industrias Bakelan, Panificadora Urquizu
2	Pedro Goenaga	Vice-president	F. Arizmendi y Goenaga
3	Fernando Irusta	Secretary	Industrias Bakelan, Irusta Hermanos y Cia, Trocaola Aranzabal y Cia
4	Victor Sarasqueta	Member	Victor Sarasqueta, La Eibarresa, Cooperativa Electrica Eibarresa
5	Tomas Garate	Member	GAC
6	Jose Ramon Iriondo	Member	Municipal judge, fire-arms workshop
7	Martin Erquiaga	Member	Erquiaga Muguruza y Cia
8	Santiago Astigarraga	Member	Mayor of the town and ox-herder, Martin Errasti y Cia
9	Aquilino Amuategui	Member	Politician of the Socialist Party, Coop. Elect. Eibarresa
10	Martin Setien	Member	Worker at Esperanza y Unceta
11	Ignacio Josue	Member	Engraver
12	Julian Aramberri	Member	Hijos de V. Aramberri y Cia, La Eibarresa, Coop. Elect. Eibarresa
13	Domingo Elorza	Member	Larrañaga y Elorza

Source: Archival data of the Gunsmithing School and the Commercial Registry Office of Gipuzkoa.

Appendix 3. Board of directors of the AAA in 1972

No.	Name and first surname	Responsibility	Company
1	Enrique Franco	President	Industrias DEJ
2	Julio Larrea	Vice-president	Norma
3	Gerardo Acha	Secretary	Esteban Acha
4	Enrique Ereña	Treasurer	Metronic
5	Jesús M ^{de} Larrañaga	Full Member	Gunsmithing School
6	Benjamin Villabella	Member	Gunsmithing School
7	Ramon Arizmendi	Laboratory	Norberto Arizmendi
8	J. Manuel Cengotita		Timoteo Sarasqueta
9	J. Larzaguren		Alfa
10	Isaac Ochandiano		Ochandiano
11	Jesus M ^{de} Alberdi	Associates	
12	Jose M ^{de} Elcoro		Elcoro Hermanos
13	Luis M ^{de} Aristegui		Francisco Arana
14	Pedro M ^{de} Ormaechea	Courses, exhibitions and screenings	Soraluce
15	Roberto Ruiz		V. Berrizbeitia
16	Jacinto Irazola		Victoriano Irazola
17	Miguel A. Urcola		
18	Iñaki Echeverria		Industrias ELE
19	Iñaki Garmendia	Newsletter and library	Electrociclos
20	Antonio Urreta		ABC
21	Jose M ^{de} Salbide		
22	Jaime Lejardi		ABC
23	Nestor Bustinduy		IDESA
24	Jose M ^{de} Dorado		Hijos de Valenciaga

Source: Newsletter of the AAA, No. 77 (1972).

Appendix 4. Representatives of the Town Council in 1938

No.	Name and first surname	Responsibility	Occupation
1	Jose Gonzalez Orbea	Mayor	Orbea y Cia
2	Juan Berraondo	Deputy Mayor	Aurrera
3	Felix Errasti	Councillor	Industrias Arpes
4	Manuel Artamendi	Councillor	Artamendi y Cia
5	Adriano Bacaicoa	Councillor	Pharmacist
6	Heraclio Echeverria	Councillor	Heraclio Echeverria y Cia
7	Pedro Urizar	Councillor	Professor Gunsmithing School
8	Justo Oria	Councillor	Echaluce y Cia
9	Juan Urizar	Councillor	Irusta, Arrillaga y Cia
10	Julian Aristondo	Councillor	Engraver
11	Ciriaco Anitua	Councillor	Doctor
12	Candido Astaburuaga	Councillor	Camas Astaburuaga
13	Jesus Baglietto	Councillor	Painter

Source: Municipal archive of Eibar and the Commercial Registry Office of Gipuzkoa.

Appendix 5. Members of "Ezkuadra Zarra" (1911)

No.	Name and first surname	Occupation
1	Adolfo Zubia	Dance professor
2	Indalecio Ojanguren	Photographer
3	Ignacio Vildosola	Otaola y Vildosola
4	Ciriaco Aguirre	Doctor, Iceta y Cia
5	Bonifacio Echeverria	Star, J. Cruz Echeverria e hijo y Badiola, Orozco y Echeverria
6	Pedro Matauco	
7	Francisco Alberdi	Francisco Alberdi, La Eibarresa
8	Ramón Iriondo	Representative of the Town Council
9	Nemesio Astaburuaga	GAC
10	Facundo Iturrioz	Politician of the Basque Nationalist Party
11	Francisco Muñoz	La Eibarresa
12	Arturo Pertegas	
13	Tomás Echaluze	Journalist of <i>La Voz de Guipúzcoa</i>
14	Eladio Larrañaga	La Eibarresa
15	Ildefonso Irusta	Irusta Hermanos Anitua y Letamendia
16	Vicente Villar	Doctor
17	José Antonio Astigarraga	Tenor
18	Feliciano Astaburuaga	
19	Segundo Mayora	Teacher and pianist, La Eibarresa, La Taurina Eibarresa
20	Leonardo Aranzabal	Aguirre y Aranzabal
21	Julián Aramberri	Hijos de V. Aramberri y Cia, La Eibarresa, Coop. Elect. Eibarresa
22	José Francisco Anitua	Aurrera, Irusta Hermanos y Cia, GAC
23	Antonio Labaca	
24	Narciso Alberdi	Aurrera, La Eibarresa
25	José Ramón Iriondo	Municipal judge
26	Tomás Irusta	Irusta Hermanos y Cia
27	Ramón Gómez	
28	Daniel Arrate	Aurrera, La Eibarresa
29	José Azpiri	Azpiri y Zabala
30	Pedro Guisasola	La Eibarresa
31	Fernando Irusta	Industrias Bakelan, Irusta Hermanos y Cia, Trocaola Aranzabal y Cia
32	Santiago Astigarraga	Mayor of the town and ox-herder, Martin Errasti y Cia
33	Victor Sarasqueta	Victor Sarasqueta, La Eibarresa, Cooperativa Electrica Eibarresa
34	Martín Antonio Bascaran	Aurrera, La Eibarresa

Source: Archival data of the Gunsmithing School and the Commercial Registry Office of Gipuzkoa.

Appendix 6. Cuadrilla Kurdin

No.	Name and first surname	Occupation
1	Romulo Alvarez	
2	Gregorio Anitua	Almacenes Anitua, Comercial Arrate
3	Casto Aristondo	Hijos de D. Aristondo
4	Francisco Bolumburu	Dental technician, Lambretta
5	Jose Antonio Charola	Industrias Mendizabal, CITESA
6	Juan Echeverria	
7	Lazaro Echeverria	
8	Martin Errasti	Martin Errasti y Cia
9	Jose Maria Gomez	Lorry driver
10	Bonifacio Guisasola	Star, Inmobiliaria Arrate, CITESA
11	Jose Iceta	Hairdresser, Alfa
12	Pedro Irusta	Sales representative
13	Vicente Marcaide	Damascening artisan
14	Vicente Olave	Alfa
15	Esteban Orbea	Orbea y Cia, Espectaculos Taurinos Eibarreses
16	Manuel Otaola	Otaola y Vildosola
17	Jose Salgado	Rodisa
18	Victor Sarasqueta (son)	Victor Sarasqueta, Inmobiliaria Arrate
19	Angel Treviño	Treviño y Arrieta, Simes
20	Pedro Trocaola	Ayra-Durex
21	Gerardo Uriona	Alfa
22	Enrique Valenciaga	Hijos de Valenciaga
23	Bonifacio Villabella	Viuda e Hijos de B. Villabella
24	Manuel Zubia	Star, barman

Source: Archival data of Kerizpe Club and the Commercial Registry Office of Gipuzkoa.

Appendix 7. Board of directors of the Casino Artista Eibarres in 1919

No.	Name and first surname	Responsibility	Company
1	Francisco Arizmendiarieta	President	F. Arizmendi y Goenaga, Ind. Bakelan, C. Elec. Eibarresa
2	Victor Sarasqueta	Vice-president	Victor Sarasqueta, La Eibarresa, Coop. Elec. Eibarresa
3	Teodoro Elcoro	Treasurer	Teodoro Elcoro, Coop. Elec. Eibarresa
4	Ciriaco Mendizabal	Secretary	Mendizabal y Barranco, Industrias Mendizabal Larrañaga y Briet
5	Marciano Aramburu	Member	
6	Benito Bereciartua	Member	Gunsmith
7	Eulogio Garate	Member	GAC
8	Felipe Unzueta	Member	Pelota player
9	Casimiro Orbea	Member	Orbea y Cia
10	Juan Aramburu	Member	
11	Isidro Gaztañaga	Member	Isidro Gaztañaga, Ind. Bakelan, Ayra-Durex, Ast. Deva

Source: Archival data of the Casino Artista Eibarres and the Commercial Registry Office of Gipuzkoa.

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